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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/731,289

12/09/2003

Hidefumi Niki

542-012.005

4923

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02/16/2006

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EXAMINER

FINEMAN, LEE A

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/731,289

Applicant(s)

NIKI ET AL.

Examiner

Lee Fineman

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office Action is in response to an amendment filed 28 October 2005 in which claim 1 was amended and claims 2 and 4 were cancelled. Claims 1 and 3 are pending.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki, US 5,762,289, in view of TEIJIN LIMITED, EP 1 162227 A1.

Regarding claim 1, Suzuki discloses a cylindrical core tube for winding plastic films wherein the core is formed of a fiber reinforced plastic or metal (col. 2, lines 21-36), and wherein the plastic film is PET or PVA (col. 3, lines 20 - 25). Thus, although not set forth in one of the examples, Suzuki at least suggests a roll of a polyvinyl alcohol film obtained by winding up the polyvinyl alcohol film around a cylindrical core tube. The recitation of the film as having been formed from a solution of polyvinyl alcohol resin is directed to the manner in which the film is formed, rather than to the structure of the film itself. It is not clear how the manner in which the film is structurally different from the film of Suzuki. Thus, Suzuki discloses the roll of PVA film substantially as claimed. However, Suzuki does not disclose the metallic material of the core tube having a surface roughness of at most 100 S, a roundness of 0.01 to 1 mm and a cylindricity of 0.01 to 1 mm.

In the same field of endeavor TEIJIN LIMITED disclose a roll of polyester obtained by winding up polyester film such as PET (para. [0011]) around a cylindrical core which may be of fiber reinforced plastic (para. [0022]). TEIJIN disclose that the surface roughness (Ra) of the core should not exceed 0.6  $\mu\text{m}$ , or the surface roughness of the core will be transferred to the wound film. It would have been obvious to one of ordinary skill to provide the metallic core of Suzuki with a surface roughness (Ra) not exceeding 0.6  $\mu\text{m}$ , in the interest of preventing the core surface roughness from being imparted to the film, as suggested by TEIJIN. As stated above, Suzuki teaches the equivalence of metal cores with fiber reinforced plastic cores for the purpose of winding PET, and teaches the equivalence of PVA and PET as wound films. The examiner believes that a surface roughness (Ra) not exceeding 0.6  $\mu\text{m}$  corresponds to a surface roughness of approximately 12.5 S to 25 S. TEIJIN LIMITED further suggest a maximum difference between the core maximum and minimum diameter of 0.2 mm (para. [0021]). As such, the examiner believes that the corresponding "roundedness" and "cylindricity" (as used in the present specification) necessarily fall within the claimed range.

With regard to claim 3, the film widths of Suzuki range from about 0.5 m to 3.0 m (as would correspond to the core length), and an exemplary outside diameter is given as 300 mm. TEIJIN LIMITED suggest roll diameters of 100 - 400 mm (para. [0019]). Given the overlap of the ranges disclosed in the prior art with those recited in the claim, it appears that, barring any unexpectedly improved result arising from selection of core outer diameter and core length, one of ordinary skill would have arrived at values lying within the recited ranges through only routine experimentation and optimization.

*Response to Arguments*

3. Applicant's arguments filed 28 October 2005 have been fully considered but they are not persuasive.

The applicant argues the examiners statement that “the recitation of the film as having been formed from a solution of polyvinyl alcohol resin is directed to the manner in which the film is formed, rather than to the structure of the film itself. It is not clear how the manner in which the film is structurally different from the film of Suzuki. Thus, Suzuki discloses the roll of PVA film substantially as claimed.” by further providing unclaimed differences between how the films are formed. The examiner still maintains that no structural differences have been claimed to distinguish the film of Suzuki from that of the instant invention.

The applicant further argues that “contrary to the Examiner’s belief, an equivalence of PVA and PET as wound films is never established by Suzuki. The examiner respectfully disagrees and again points to column 3, lines 20-25 which clearly state that both PET and PVA are polyester films which can be wound on the core.

The applicant further argues that by having annual collars Suzuki teaches away from using a mere cylindrical tube as a core. It should be noted that the claims recite open-ended language. Thus, reliance upon the Suzuki reference is appropriate since this reference includes a cylindrical core tube (1).

Finally the applicant argues that although TEIJIN LIMITED teaches cylindricity it does not teach roundness which denotes a difference between the maximum and minimum outer diameters measured a random section of the core. The examiner respectfully disagrees and would like to point out that the area of maximum difference on the core is a position on the core.

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Therefore if the roundness was randomly measured at that position it clearly meets the claimed values.

*Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kobayashi et al., US 2004/0069885 A1 discloses winding a polyester film on a plastic core with specific surface roughness.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
LAF

February 13, 2006

  
**DREW A. DUNN**  
**SUPERVISORY PATENT EXAMINER**